

REMARKS

I. Support for the Amendments

Claims 1-32 were originally in the application. Claims 1-25 have been canceled, and claims 29-32 have been withdrawn. Claims 26-27 and 33-44 were previously in the application.

Claims 26-27 and 33-48 were previously in the application. Claims 26 and 39 have been amended, and claim 38 has been canceled without prejudice to its pursuit in an appropriate continuation or divisional application.

Support for amended claims 26 and 39 can be found in the original specification, figures, and claims. Support for these amendments can also be found in the previous versions of these claims. No new matter has been added by virtue of these amendments.

Additional support for amended claim 26 can be found, e.g., in claims 26 and 38. Additional support for amended claim 39 can be found, e.g., in claims 38 and 39. Claim 39 was dependent on canceled claim 38 and has been amended to be dependent on the underlying independent claim 26 and also for technical reasons to make the language consistent with that of claim 26. Additional support for amended claims 26 and 39 can be found, e.g., from page 1, line 19, to page 2, line 6; on page 3, lines 3-19 and 24-28; from page 6, line 13, to page 10, line 2; and in the Examples.

II. Status of the Claims

Claims 1-32 were originally in the application. Claims 1-25 have been cancelled. Claims 26-32, which were previously non-elected claims in U.S.S.N. 09/354,664, were previously in the application. Claims 26-32 were subject to a restriction requirement. Claims 26-28 were elected.

In the previous amendment, claims 40-41 and 43 were amended, non-elected claims 29-32 were canceled, and claims 45-48 were added.

Claims 26-28, 33-37, and 39-48 are currently in the application. Claims 26 and 39 have been amended, and claim 38 has been canceled without prejudice to its pursuit in an appropriate continuation or divisional application.

III. The Request for a Corrected Filing Receipt

Applicants are currently awaiting a revised, corrected filing receipt.

IV. The Previous Rejection of Claims 40-42 Has Been Withdrawn

The Examiner has withdrawn the previous rejection of claims 40-42 under 35 U.S.C. §112, second paragraph, for dependence on a canceled base claim. Applicants thank the Examiner accordingly.

V. The Rejection of Claims 26-27, 33-34, 37, and 41-42 under 35 U.S.C. §102(b) is Traversed in Part and Accommodated in Part

The Examiner has rejected claims 26-27, 33-34, 37, and 41-42 under 35 U.S.C. § 102(b) for alleged anticipation by Fujishiro (JP 07-250681). Applicants respectfully traverse this rejection, but have amended claim 26 to further prosecution in a timely manner.

Applicants respectfully submit that Fujishiro does not anticipate the claims to the present invention. For example, Fujishiro describes the use of a cartridge system first to trap bacteria and then to bind the DNA on a glass fiber filter. Once the bacteria are trapped, an external bacterial cell lysis solution containing an RNase is added to liberate the DNA so it can then bind to the glass fiber matrix.

In contrast, in the presently claimed invention, there is no plurality of filters in series, and the lysis agents are incorporated into the matrix so that DNA binds in a non-chemical manner.

In view of the foregoing, Applicants respectfully submit that claims 26-27, 33-34, 37, and 41-42 fulfill the requirements of 35 U.S.C. §102(b), and request the Examiner's reconsideration of these claims accordingly.

VI. The Rejection of Claims 26-27, 33-39, and 43-48 under 35 U.S.C. §103(a) is Traversed in Part and Rendered Moot in Part

The Examiner has rejected claims 26-27, 33-39, and 43-48 under 35 U.S.C. § 103(a), alleging obviousness over Rogers et al. (Analyt. Biochem. 247: 223-227 [May 1997]; "Rogers & Burgoyne" or "Rogers") in view of Burgoyne (U.S. Patent 5,496,562) and in view of Kahn et al. (Methods Enzymol. 68: 268-280 [1979]; "Kahn"). Applicants respectfully traverse this rejection. Claim 38 has been canceled, and the rejection is rendered moot with respect to this claim.

The Examiner alleges that Rogers shows recovery of DNA from bacterial liquid cultures by application of the culture to the FTA[®] solid medium, followed by PCR. The Examiner concedes that Rogers does not show use of bacteria comprising vectors or media comprising micromesh plastic and that Rogers does not detail the composition of the chemicals in the FTA[®] medium, but references the Burgoyne patent. The Examiner then focuses on columns 2-4 and Example 2 (cols. 4-6) of Burgoyne with respect to disclosure of the cellulose or plastic micromesh solid support, the chemical composition, and the application and storage of isolated pUC19 plasmids, followed by their recovery. Finally, the Examiner notes that claim 6 claims application and recovery of generic DNA. The Examiner cites Kahn for replication of vectors in bacterial and for the usefulness of the vectors.

Applicants have already discussed these references at length. For the reasons already on record, Applicants respectfully submit traverse this rejection.

Applicants note that Rogers & Burgoyne describes experiments with genomic DNA. Kahn mentions how plasmid DNA can be separated from genomic DNA on the basis of its smaller size or its unique properties of it being a covalently closed circular DNA or in other words less complex than genomic DNA, but this reference actually teaches away from the present invention. For example, as Applicants have previously noted, plasmid DNA behaves differently from genomic DNA based on its composition and its structure. It would not be expected that less complex DNA would interact with a solid matrix in the same manner as genomic DNA, so it would not be intuitive that plasmid DNA could be isolated on a solid matrix.

As Applicants noted previously, Burgoyne speaks of using purified plasmid DNA as an experimental source of double stranded DNA in order to show that purified DNA on FTA[®] is stable when followed by plastic coating. In contrast to the present invention, Burgoyne does not disclose vector DNA isolated directly from cells, however. Rather, in Burgoyne, the plasmid DNA was first purified by state of the art methods at the time then applied to FTA[®]. It is not

intuitive that adding the cells directly would have purified the plasmid DNA. Burgoyne only demonstrates DNA isolation directly from cells for genomic DNA.

In the previous Amendment, Applicants pointed out that it could not have been assumed that plasmid DNA would elute from bacterial cultures on FTA[®] medium in the same manner as chromosomal DNA, citing, e.g., Old & Primrose as two examples of the different properties of chromosomal DNA and plasmid DNA. Applicants respectfully submit that, while this present invention does not relate either to density in the presence of ethidium bromide, or to denaturation at pH 12.0-12.5, the reference nevertheless underscores the fact that differences in the properties of chromosomal DNA and plasmid DNA demonstrate the lack of predictability that a method that works with one type of DNA will work with the other.

Applicants respectfully draw the Examiner's attention to the Examination Guidelines for Determining Obviousness under 35 U.S.C. 103 in View of the Supreme Court Decision in KSR International Co. v. Teleflex Inc., Fed. Reg. 72(195): 57526-57535 (Oct. 10, 2007). The teaching/suggestion/motivation test is listed as Rationale G on page 57529. (For the reasons discussed above and in previous Amendments, the present invention is not predictable under Rationales A-E, and Rationale F is inapplicable to the present situation.)

In view of the foregoing, Applicants respectfully submit that remaining claims 26-27, 33-37, 39, and 43-48 fulfill the requirements of 35 U.S.C. §103(a), and request the Examiner's reconsideration of these claims accordingly.

CONCLUSION

In view of the foregoing amendments and remarks, the present application is respectfully considered in condition for allowance. An early reconsideration and notice of allowance are earnestly solicited.

It is believed that all outstanding rejections have been addressed by this submission and that all the claims are in condition for allowance. If discussion of any amendment or remark made herein would advance this important case to allowance, the Examiner is invited to call the undersigned as soon as convenient.

Applicants hereby request a one-month extension of time for the Amendment and accompanying materials. If, however, a petition for an additional extension of time is required, then the Examiner is requested to treat this as a conditional petition for an extension of time and the Commissioner is hereby authorized to charge our deposit account no. 04-1105 for the appropriate fee. Although it is not believed that any additional fee (in addition to the fee concurrently submitted) is required to consider this submission, the Commissioner is hereby authorized to charge our deposit account no. 04-1105 should any fee be deemed necessary.

Respectfully submitted,



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Date: May 9, 2008

Customer No. 21874